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ABSTRACT

A computer-based methodology for literary criticism termed symmetry-complementarity analysis is presented through description of a test search on data coded from the first 26 pages of "Monsieur Ouine" by Georges Bernanos. The design was inspired by the work of Watzlawick, Beavin, and Jackson (1967). The theoretical assumptions which prompted design of the methodology view dramatic and fictional works as self-contained operative systems with various subsystems. Other suggested critical studies of French text which lend themselves particularly well to application of the methodology are then outlined. Curricular implications of the interdisciplinary approach to literary criticism which drew from the areas of systems science, information science, and behavioral science receive comment. The methodology's assumptions rest on the contention that systems science legitimately and necessarily includes literary criticism among its concerns. (Author)

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Computer-Based Analysis of Fictional and Dramatic Texts as Self-Contained Operative Systems

Florence E. DeHart

With the assistance of Ronald L. Fingerson and Deborah D. Brooks

INTRODUCTION

A computer program was designed by Deborah D. Brooks, under the guidance of Professor Ronald L. Fingerson, with search capabilities that I specified.[1] These were to be applied to data coded from the first twenty-six pages of Monsieur Ouine by Georges Bernanos (1961) through a broadly applicable methodology of literary criticism that might succinctly be described as symmetry-complementarity analysis. It took form from the theoretical assumptions posited here: (1) that power behind momentum engendered by reciprocal behavioral effects of characters' on-going dyadic communication systems, interdependent with subdyadic systems, serves as the central force that forms and unifies a dramatic or fictional work into what constitutes a self-contained operative system; and (2) that all other textual elements, such as communication content, narration, description, imagery, etc., would appropriately be dealt with critically in simultaneous fashion as subsystems of a whole work viewed as an operative system. Subdyad refers to a pair composed of one member of a major dyad in which a critic is interested and any other character in the same work. It must be pointed out, however obvious,

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that the author of a literary work speaks for the characters in creating their communication systems, but this does not invalidate efforts toward analyzing those communication systems.

This paper will demonstrate the methodology's operative feasibility through description of a test search utilizing the computer program. It will include an analysis of the output information. The program could be modified for use with transcriptions of human communication. Other suggested critical studies of French fictional and dramatic texts will then be outlined which lend themselves particularly well to application of symmetry-complementarity analysis. When completed, they could provide needed evidence, supportive or contradictory, concerning the soundness of the methodology and its underlying assumptions. Curricular implications, including those for systems science, will receive brief comment.

The immediate critical objective envisaged for the suggested studies follows: systematically to identify and analyze patterns of symmetrical and complementary communication exchanges, with certain of their related characteristics, which operate functionally to determine relationship outcomes that effect a work's line of development. The phrase, line of development, is used here instead of plot, or story line, in broader reference to what takes place in a literary work, in other words its substance or unfolding of meaning. This definition accommodates those works whose dominating feature does not consist of a line of action. The ultimate critical objective envisaged for the suggested studies is to increase understanding and enhance appreciation of

the works in question.

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SYMMETRY-COMPLEMENTARITY ANALYSIS

Definition

Watzlawick, Beavin, & Jackson (1967, pp. 48-71) define "symmetry" and "complementarity" in terms of communication systems. According to these behavioral scientists, an important interactional aspect for understanding relationship outcomes between two individuals is whether their nonverbal and verbal communication exchanges are symmetrical and/or complementary. This has to do with "relationship" aspects, or the "how," of their communication, as differentiated, but not completely dissociated, from communication "content" aspects. When partners of a dyad tend to mirror each other's types of responses in a similar role status, i. e., enact the same response types, their communication is symmetrical. Although they retaliate in such a way as to define their equality, they are not necessarily pursuing disagreement. For example, two lovers might engage in symmetrical exchange, each by insisting that the other is the superior of the two. On the other hand, when partners mutually complete each other's types of responses in dissimilar role status, i. e., enact different response types, their communication is complementary. Symmetry and complementarity are not automatically to be equated with value judgments, such as "good," "bad," "strong," or "weak." A typical example of a complementary relationship, the interlocking nature of which is set by its social context, is that which ordinarily exists between a doctor

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and patient, wherein each behaves in a manner presupposing, and simultaneously providing reasons for, the behavior of the other.

Symmetrical interaction reflects equality of position with a minimization of difference, whereas complementary interaction is based on inequality of position, with a maximization of difference. A balanced mixture of the two types of responses in dyadic exchanges usually indicates "healthy" communication. But when symmetrical responses escalate to a marked degree, and when complementary responses become subject to rigidity, resulting communication takes on pathological characteristics. The results range from disturbance of a relationship's equilibrium to the precipitation of drastic action on the part of one or both partners.

Application as illustration of behavioral science thesis

In Chapter 5, "A Communicational Approach to the Play Who's Afraid of Virginia Woolf?", Watzlawick, Beavin, & Jackson (1967, pp. 149-186) analyze the symmetrical and complementary patterns in which Albee has his characters communicate. They show how these operate toward destruction of the homeostatic, or stabilizing, mechanism of the child-myth.

A significant aspect of these behavioral scientists' analysis is their attention to the specific "how" of the operational functioning of response. This has to do with whether George and Martha could control or halt their interactional patterns regardless of reasons why they may have begun to interrelate thus, such as capacity and volitional freedom for communication. Further,

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the authors take care to point out the danger of describing dyadic behavior by means of summative formulations which assign roles to each partner, for these tend to neglect the "how" of the on-going communication system and to ignore its inherent functional circularity.

Earlier literary application

Watzlawick, Beavin, & Jackson (1967) included the above-mentioned symmetry-complementarity analysis in their work as a useful means of illustrating their thesis that symmetrical and complementary exchange between two individuals bears significantly on understanding precisely what takes place in behavioral interaction. It was not their direct intent to produce a piece of literary criticism nor to claim authorship of the only valid interpretation of the play. Some years earlier, however, Lasswell, Lerner, & De Sola Pool (1952, p. 79), specialists in text processing systems, directly recommended that literary critics engage in a more intensive analysis of behavioral interaction between characters. Maintaining that the distribution of identified types of interpersonal exchange determines the flow of a story, they analyzed a selected text portion and deduced what amounted to symmetrical and complementary dyadic communication patterns. Although the authors did not name or enlarge on these two response types, they stressed the need to identify various kinds of character interaction as central to interpretation of the meaning of the work in question.

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Value for theory of literary criticism

The application of symmetry-complementarity analysis to a number of works would test the methodology's underlying assumptions and contribute toward the further development of the theory of literary criticism. The theoretician requires exemplification in his probing to identify what constitutes validity of interpretation and to determine the appropriateness of specific methodologies for fulfilling particular critical objectives. Reported interpretations resulting from completed studies of dramatic and fictional texts, derived through this methodology, could be compared with other reported interpretations of the same works, derived through various other stated or implied methodologies. Comparisons would necessarily be limited to studies with the same stated or implied critical objectives.

Other benefits toward further development of the theory of literary criticism may well result. The feasibility of analyzing the more unusual, special forms of dyadic communication warrants exploration. These include figurative interaction between a character and God, in instances where a character communicates with God and reportedly perceives response, or a lack of response. Another example is the interaction between one character and another whose words are not verbally reported but only at times indirectly suggested, as in Camus' La Chute. With respect to a parody of a work or genre, added insights may be obtained into how the author produced the effects of parody and what relation, if any, these have to his representation of characters' behavioral interaction.

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DEMONSTRATION

Computer role

A partial implementation of symmetry-complementarity analysis of dyadic communication in Monsieur Ouine by Georges Bernanos will now be exemplified. It must be stressed at this point that the computer is merely a tool to facilitate the tracing of relationship aspects of on-going dyadic communication throughout a novel. The process of coding data in which the critic engages constitutes the central core of the methodology. He must not only encode text, but also inspect, analyze, and interpret output information. Identified on-going functional communication patterns do not in themselves constitute critical interpretations. Implications inherent in the nature and function of the interactional processes can be discovered only by inspecting and analyzing the sequences, identified through the computer-based methodology. Although it is possible, but often laborious, for a critic to identify various interactional characteristics without recourse to a computer, he would find it virtually impossible to obtain through manual tracing the total range of output information afforded by this machine-oriented approach.

Use of Coding Forms

The advantage of utilization of IBM COBOL Coding Forms for recording communication exchange is that they can be made available to other critics who can inspect the input data and identify points from which varying and conflicting interpretations may have arisen. The coding process demands that the critic make

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necessary distinctions and define with precision what he is addressing himself to, as well as that he be responsible for elucidating rationale behind his coding decisions. Validity and reliability of the methodology can thus be assessed with greater certainty. Instances of neglect or misreading of output information in formulating critical interpretations would be apparent.

Dyads and subdyads

In this demonstration, Steeny, Monsieur Ouine, and Jambe-de-Laine are considered to be the principal characters in Monsieur Ouine. Major dyads, then, consist of Steeny--Monsieur Ouine, Steeny--Jambe-de-Laine, and Monsieur Ouine--Jambe-de-Laine.

The subdyads, too numerous to list, consist of relationships between a character who is a member of a major dyad, i. e., Steeny, Monsieur Ouine, or Jambe-de-Laine, and any other character in the novel. A critic may also want to code and study dyadic communication systems, in interdependence with subdyadic systems, between all characters and every other character in the novel, such as that between Michelle and Miss. The purpose is not to reduce literary criticism to a skirmish with myriads of minutely detailed data but rather to unfold further the seemingly endless complexity of a work and its meanings. With more complete, accurate information, we can arrive at sounder critical interpretations. The scope of the present exemplification was limited, however, to hold the demonstration to manageable proportions.

Input format

Column arrangement and input format headings for fields on

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IBM COBOL Coding Forms for data relevant to dyadic communication will now be presented, but various other layouts, if preferred, would prove equally workable. The following layout should be imagined as running across a 13½ x 8½ inch sheet: Columns 1-4--Sequence number; Column 5--leave blank to separate Sequence number from Sequence sub-number; Columns 6-8--Sequence sub-number; Column 9--Symmetry, complementarity; Column 10--Verbal, nonverbal; Columns 11-13--Stimulus-response; Columns 14-16--Target 1; Columns 17-19--Target 2; Columns 20-22--Target 3; Columns 23-25, 26-28, 29-31, 32-34, 35-37, 38-40, 41-43, 44-46 (eight fields of three columns columns each, permitting the coding of up to eight characters)--In hearing or observation; Columns 47--Direct, indirect, style indirect libre; Columns 48-51--Page number; Columns 52-75--free numbers for use should a critic desire to code additional data; Columns 76-80--Card accession number.

Field definitions

Each input format heading, or field heading, will now be defined, including the use of letters and numbers by which data are coded on the Forms. Sequence number refers to the consecutive numbers assigned to series of symmetrical and/or complementary responses. When the exchanges in a series reach closure or otherwise end, or when a dyadic partner utilizes the response type other than the one in operation to that point in the sequence, the next consecutive number is assigned. This is in preference to attempting to determine the beginning and end of a conversational sequence and to determine criteria for characterizing it

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as primarily symmetrical, complementary, or mixed. One can expect, then, that there will be many entries bearing the same Sequence number, with each line of the Forms constituting an entry.

Sequence numbering may be interrupted, when necessary, to accommodate an intrusion on a conversation by another character. For example, A is speaking with B, in a sequence numbered 11. C enters the scene and speaks with B in a sequence numbered 12. When C finishes speaking, A then continues to speak with B. The same Sequence number (11) should be used even though the entry line immediately above bears the next consecutive Sequence number (12), provided, of course, that the communication exchange between A and B continues in the same response type as that previously demonstrated in the sequence.

Sequence sub-number refers to the consecutive numbering of the entries for communication exchanges within a particular sequence of like-type responses. The critic will find it very useful to note the Sequence number and the Sequence sub-number in the margin of the text, where appropriate, for reference at the interpretation stage. This does not, of course, enable him conveniently to pull together aspects that he desires to trace throughout the text. However, appropriate text portions located through computer application, can more readily be referred to for inspection of reciprocal behavioral effects when identifying and interpreting the work's line of development in terms of relationship outcomes.

Symmetry, complementarity, represented by S or C, refers to

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a dyad member's type of response in relation to his partner's immediately preceding stimulus. Actually, the use of stimulus and response to denote communication exchange is incorrect, although convenient, in that the character who speaks first on meeting another responds to the stance or bearing of that other character, insofar as the author has indicated this. Nevertheless, the first entry in a sequence, where a character has just entered the scene, should be coded S or C, according to the response types of the exchanges immediately following, in order to keep sequences of communication exchange together. It will be recalled that as soon as a character switches to the other of the two response types, a new Sequence number should be assigned. These instances would include cases where responses rotate rapidly between S and C in communication exchanges. The appearance of several different Sequence numbers within one conversation between the same dyadic partners on the same page of the text indicates the balance usually associated with particularly "healthy" communication.

Three exceptions in coding this field may be made should the critic desire special information. They require assignment of the next consecutive Sequence number with a Sequence sub-number of 1. The first is the use of R for Repeated, when communication is reportedly repeated at intervals over a span of time. For example, Michelle's words to Steeny, "Tu rêves, Steeny, pouah!" (p. 1365) are pronounced in Steeny's memory, with the implication that he periodically hears them from Michelle. The second is the use of O for Outside, meaning that the communication is outside

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a true exchange sequence, such as Steeny's imagining Michelle's accusatory response to him on her smelling the odor of tobacco: "Pouah! quelle horreur!" (p. 1355). Further breakdown using substitute letters may be desired to code a character's talking to himself or to another character in his imagination. The third is the use of T, or Target, which device makes it possible for the critic to locate instances where a character addresses two or three characters. In this way, the critic may compare the character's dyadic behavior with his behavior in small groups. If the critic prefers to limit himself strictly to recording dyadic communication, he would not, of course, code entries for more than one Target.

Verbal, nonverbal, coded by V or N, refers to whether or not communication is spoken. Nonverbal responses, as defined here, include written communication and physical handling of the dyadic partner, such as shaking him in anger, or by contrast, caressing him. When communication is coded N, the critic need not fill in the column for Direct, indirect, style indirect libre.

Stimulus-response refers, strange as it may first appear, to the character communicating. This particular heading, although double in nature, designates one character. It emphasizes the point that a character's response reflects his dyadic partner's immediately preceding stimulus. The response also serves as a stimulus to his dyadic partner's subsequent response. This heading, however, as nay other, may be discarded in preference for other terminology, provided that the words or phrases substituted

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express the concept intended for a particular field. Characters are coded by the first letter of their names: S for Steeny, O for Monsieur Ouine, etc. Characters whose names begin with the same letter are represented by two letters, MS for Miss, ML for Michelle, etc. There may be doubt about which character is communicating with which other character. This occurs, for example, near the end of the novel where certain critics have disputed whether Steeny hears or only imagines Monsieur Ouine's communicating with him. In such cases, the critic should code whichever he feels is the most likely character and place a question mark in the third of the three columns allotted to the Stimulus-response field. A question mark may also be placed for the same reason in the third of the three columns allotted to each Target field and to each In hearing or observation field.

Target refers to the dyadic partner who is being addressed. Three Target fields are allocated to make it possible to code up to three characters if desired. The critic must judge spatial need when allocating columns at the format planning stage. Targets are coded in the same manner as Stimulus-response characters, i. e., with one or more capital letters. It will be recalled, as mentioned above, that when more than one Target is coded, the Symmetry-complementarity column is coded T.

In hearing or observation refers to a character reported in the novel as being in hearing distance of or as observing on-going dyadic communication. Eight fields are allocated to make it possible to code up to eight characters with one or more capital letters.

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Direct, indirect, style indirect libre, coded d, i, s, refers respectively to whether communication is directly reported by the author through dialogue, is indirectly reported by the author, or is indirectly expressed by the author who identifies himself with a character and acts as his spokesman. Further enlargement on these concepts may be found in Landry (1953).

Page number, as one might expect, refers to the number of the page on which the communication exchange is found. It is represented by the page number itself. For example, 1349 is the first page of Monsieur Ouine in the volume of Bernanos' collected works cited above.

Card accession number refers to the sequential number of the entries to be transferred to IBM punched cards, one entry to a card. It is represented by the number itself, for example, 12 stands for the twelfth entry.

Example of text coding

Following is an example of a single communication message. Coding is given which records text locations of the dyadic communication characteristics under study, in relation to the immediately preceding communication message. "'Non! non!' s'écrie Steeny. 'Non!'" (p. 1349). This message, a response of Steeny to an immediately preceding nonverbal communication message from Miss, consisting of her taking his face in her hands and studying his eyes, is coded 1 in column 4 for Sequence number because it is the first series of communication exchange in the novel; 2 in column 8 for Sequence sub-number because this particular message

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is the second in the communication exchange series; S in column 9 for Symmetry, complementarity because Steeny asserts himself in a way to define his equality in the situation; V in column 10 for Verbal, nonverbal because Steeny speaks the words aloud; S in column 11 for Stimulus-response because Steeny is the character communicating; MS in columns 14 and 15 for Target because Miss is the character to whom Steeny addresses his communication message; ML in columns 23 and 24 for In hearing or observation because Steeny's words were vocalized in hearing of Michelle; D in column 47 for Direct, indirect, style indirect libre because Steeny's words are reported through dialogue; 1349 in columns 48, 49, 50, and 51 for Page number because Steeny's exclamation appears on page 1349 of the text; and 2 in column 80 for Card accession number because the record, or data in all fields taken together, appears on line two of the COBOL Coding Form and subsequently on the second punched card of what will comprise the data deck.

Output format

Each of the fields listed above can be searched to obtain information output sorted in alphabetical or numerical order. The critic would do well to obtain printouts of all fields and work with them simultaneously to secure an overview more likely to reveal inherent interrelationships. Sequence of output format headings remains the same in all searches, but arrangement within fields changes. This will be discussed in the section immediately following which deals with the computer program. For purposes of this demonstration, a printout was obtained of a search on the

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stimulus-response field. It consists of 120 lines which account for all 120 entries on the COBOL Coding Forms and presents information relevant to communication between the particular dyads and subdyads under study within the first twenty-six pages of Monsieur Ouine. Input field sequences are observed to be rearranged in the output format, i. e., the first field of the printout lists the Stimulus-response characters in alphabetical order (J, ML, MS, O, S). Next appear the characters in the Target fields followed by those in the In hearing or observation field. Subsequent fields appear in the following sequence: Symmetry, complementarity; Sequence number; Sequence sub-number; Verbal, nonverbal; Direct, indirect, style indirect libre; Page number; and Card accession number.

Computer program

In approximation, the computer program required 250 punched cards and filled 635 lines of printout sheets. It can accommodate additional instructions to total any desired quantitative information. In characterizing a relationship, the critic might require, for example, the number of sequences of symmetrical or complementary responses applicable to certain dyadic partners. He might need the number of all symmetrical sequences with ten or more exchanges (numbered consecutively as Sequence sub-numbers) in order to locate, for example, instances of symmetrical escalation. Or he might want the number of nonverbal exchanges within a particular dyad to ascertain their function and consistency with that of the dyad's verbal communication. It is, of course, the

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responsibility of the critic to use quantitative totals with necessary reservation in formulating qualitative interpretations, for one exception in the data may prove to be of overriding importance.

The program is written in COBOL computer language, native mode, for an IBM 370/125 computer. A utility program constraint forbids ordered searches on more than twelve of the total number of nineteen fields at a time. The Card accession number field, however, is sorted by means of an 083 sorter. The remaining seven of the nineteen fields are included on the printout but are not ordered alphabetically or numerically. An IBM program card, or ascending key card, was punched for each of the eighteen fields which are sorted through the program. The critic can plan how he wants twelve of the fields ordered by placing the program card for the desired initial search first in the ascending key card sequence, and depending on the sequence in which he has placed the remaining eleven cards, these will be sorted alphabetically or numerically, whichever is applicable, as subroutines within the preceding sort. The program is highly flexible, for the twelve permitted program cards may be arranged in any permutation to break down the data as desired.

Analysis of output information

The output information provided by the test search suggests certain questions that are worthy of further pursuit. These indicate, pending a full-scale study of Monsieur Quine, that the operational "how" of the dyadic communication systems, in inter-

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dependence with subdyadic systems, may contribute substantially toward determining relationship outcomes. This has significance for effecting the novel's line of development through power behind momentum engendered by reciprocal behavioral effects of characters' symmetrical and/or complementary exchange patterns. The questions follow: What communicational process propels the series of symmetrical exchanges characterizing the Steeny--Monsieur Ouine dyad toward closure? What element, if any, in their relationship, serves as a homeostatic mechanism, or means toward preventing sufficient escalation of symmetrical exchange to end the relationship, if this response pattern continues to dominate? Is the mechanism, if one exists, related to inability on the part of either or both to stop probing for and divulging secrets? Does any particular behavioral consequence in the Steeny--Jambe-de-Laine dyad result from power behind momentum gained through mutually habitual nonverbal responses, in spite of the balance between symmetry and complementarity that is seen to characterize the partner's communication system? When Steeny and Monsieur Ouine talk about Jambe-de-Laine, and when Steeny and Jambe-de-Laine talk about Monsieur Ouine, are their conversation exchanges particularly marked by either response type? If so, is this reflected in the behavioral interaction, including possibly a total lack of it, between Steeny--Jambe-de-Laine and Monsieur Ouine--Jambe-de-Laine?

OTHER SUGGESTED APPLICATIONS TO FRENCH TEXT

Other fictional works

Several other French fictional works which especially invite

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focus on functional response patterns crucial to relationship outcomes through symmetry-complementarity analysis will now be identified. The following nineteenth and twentieth century French novelists particularly seem to solicit comparison for finer insights into their aims and techniques: Bernanos, Mauriac, Flaubert, Sartre, Gide, Zola, Camus, Giraudoux, Balzac, and Stendhal. Mauriac, for example, might well prove to resemble Flaubert in ways previously overlooked or treated insufficiently, and the ironic laughter and tears on the part of Monsieur Ouine at the end of Bernanos' novel by that name may be shown to bear more than a surface resemblance to the ironic laughter and tears on Emma Bovary's part as she lay dying.

The novels by the ten authors mentioned above include characters who fall into various descriptive categories, such as adolescents, unhappy wives, priests, misers, etc. In certain of these novels, the authors, to varying degrees, explicitly identify the motivation behind characters' actions. In other novels however, the authors incorporate, to varying degrees, particular philosophies of life such as determinism or existentialism. Such stance of viewpoint on their part logically requires them to refrain from representing concepts relating to causality. Symmetry-complementarity analysis of communication between dyadic partners in the above-mentioned categories might well disclose more accurate indications of the conceptual orientations toward life which the characters hold as individuals and as types. For example, in novels commonly held to embody a deterministic philosophy, do relationship struggles between characters exist that pre-

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clude the attribution of results to fatality?

Proceeding now with a single work, Flaubert's Madame Bovary, we will consider how, in this case, we can derive enhanced appreciation of the author's style through an analysis of the details by which he represents symmetrical and complementary responses. Numerous examples of relationship struggles are evident, particularly in episodes involving Rodolphe's seduction of Emma through clever use of complementary responses to gain his end. Struggles involving Emma's subsequent domination of both Rodolphe and Léon in rigidly complementary relationships exist as well. The meetings in which Emma and Léon become acquainted, however, are of interest for their balanced symmetrical-complementary exchanges. The conversations between Emma and Charles, in the few instances where Flaubert represents these in the novel, warrant study for their general lack of discernible patterns of symmetry-complementarity. The resultant indefinite quality weakens the impact of the couple's exchanges on the reader and effectively conveys to him that the pair's marital relationship is virtually nonexistent.

Two stylistic devices by which Flaubert represents complementary exchange in Madame Bovary command further critical attention. The first, the omission of a character's response, followed by an abrupt move to the next section of the novel, is a device that gives the illusion that the other character is left dangling speechless. It constitutes a major function of the novel's truncated sequences: to accent the complementarity already apparent in the relevant relationships. The second, the author's structuring of dialogue to represent a selected highlight or a typical

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sampling of reportedly repetitive incidents, serves to attribute a self-reflexiveness to the characters' interactions. It emphasizes the rigidity, and thus the pathology, of the predominantly complementary behavior characterizing the relevant relationships. Other examples of Flaubert's stylistic handling of these two response types readily manifest themselves in the novel, which, along with a more detailed analysis of those just cited, would heighten awareness of his tight control and expert manipulation of his material.

Dramatic works

"The playwright invents a particular world and peoples it with relationships, not just characters" (Bermel, 1973, p. 4). Falk's (1970) "No Exit and Who's Afraid of Virginia Woolf: A Thematic Comparison," might be studied against a comparative analysis of the same two plays that would be undertaken by a critic according to symmetry-complementarity analysis as exemplified in the Watzlawick, Beavin, & Jackson (1967) commentary on the latter play. It will simply be noted here that at the points in Falk's interpretations where he speaks of George's complementary role in Who's Afraid of Virginia Woolf? (p. 415), and of a reliance, in both plays, on the catalytic intervention of another person in the situations in question (p. 416), Falk's methodology takes on a similarity to that advocated in this paper. His procedure bears on the identification and analysis of the relationship aspect of on-going communication as central to interpreting the plays' line of development. A methodological approach toward

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Huis clos which is somewhat suggestive of symmetry-complementarity analysis has been applied, at least in effect, by Cargo (1966) in his explication of this play through attention to the structural pattern in which characters communicate.

A comparison of Sartre's Huis clos and Bernanos' Dialogues des Carmélites for the functional operation of on-going communication patterns might well uncover surprisingly similar interactional stances between characters within each play, in spite of the widely disparate settings of a Carmelite monastery and hell. Characters' behavioral authenticity might well be illuminated with new insights through apprehension of the "how" of dyadic partners' communication as they engage in creating, shaping, and perpetuating their relationships. Relational aspects of the communication between Monsieur Ouine and his major dyadic partners is reminiscent of that between Garcin, and to an extent, Inès, and their dyadic partners in Sartre's Huis clos. Difference in genre notwithstanding, Bernanos' Monsieur Ouine bears certain striking resemblances, where character interaction is concerned, to his Dialogues des Carmélites, and these warrant further exploration.

CURRICULAR IMPLICATIONS

This explication of symmetry-complementarity analysis with demonstration of feasibility will hopefully encourage more frequent, explicit, and systematic utilization of this methodology in literary criticism. The potential value of designing methodology according to a view of dramatic and fictional works as self-contained operative systems, with various subsystems was

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explored in this paper. The methodology drew from the areas of information science, specifically computer-based text processing systems, and from behavioral science, specifically, dyadic interpersonal communication. The underlying assumptions rest on the contention that systems science legitimately and necessarily includes literary criticism among its concerns. Curricula in literary criticism, behavioral science, information science, and systems science might profitably incorporate or place greater emphasis on relevant interdisciplinary applications in appropriate ways. Thus, preparation for collaborative roles of specialists in these areas may be strengthened.

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FOOTNOTES

[1] Miss Brooks designed the program in partial fulfillment of the requirements of Library Systems Analysis II, Department of Librarianship, Emporia Kansas State College, Spring 1974. Professor Fingerson assisted in the reporting on the program. This paper benefited from the criticism of Naomi Carman, Janet Dagenais, Lauran Elmquist, Leslie James, and Mildred Lungren.